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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,765	07/15/2003	Kazuaki Sumita	0171-0991P	6014
2292	7590	07/24/2006		EXAMINER
BIRCH STEWART KOLASCH & BIRCH				SELLERS, ROBERT E
PO BOX 747				
FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/618,765	SUMITA ET AL.	
	Examiner Robert Sellers	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 4 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 June 2006.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,7 and 8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,7 and 8 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

This is responsive to the Request for Continued Examination and amendment filed June 7, 2006. The removal of the word "substantially" characterizing the lack of alkoxy-bearing silane coupling agent except in the surface treatment of an inorganic filler in independent claim 1 overcomes the 35 U.S.C. 112, second paragraph, rejection. The 35 U.S.C. 103(a) rejection over Japnaese Patent No. 10-231351 is rescinded based on the limitation of liquid epoxy resin (A) to "consisting of a bisphenol type epoxy resin" in claim 1 precluding the epoxy-terminated polysiloxane of the reference.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. The metes and bounds of the claimed bisphenol epoxy resin are unclear in the presence of the term "type" which embraces modifications and derivatives of the bisphenol epoxy resin not contemplated.

Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. 64-65120 (Japanese '120).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese '120 as applied to claims 1 and 7, and further in view of Japanese Patent No. 10-231351.

The rejections are maintained for the reasons of record set forth in the previous Office actions. Japanese '120 discloses an equivalent ratio of diaminodiphenylmethane to liquid epoxy resin of 0.9:1 wherein the epoxy resin includes bisphenol epoxy resins (Derwent abstract). No criticality is seen in the newly claimed molar ratio of less than 0.85:1 over the prior art minimum of 0.9:1 since "it is not inventive to discover the optimum or workable ranges by routine experimentation (*In re Aller*, 105 USPQ 233, 235, CCPA 1955)."

2. The declaration filed January 23, 2006 in Table A establishes no distinction in toughness  $K_{1c}$  for Examples 9 and 10 with molar ratios of 0.7:1 and 0.8:1 (3.8 and 4.0  $\text{Mpa}\text{m}^{1/2}$ , respectively) and Example 11 having a molar ratio of 0.9:1 representative of Japanese '120 with a toughness  $K_{1c}$  of 3.8  $\text{Mpa}\text{m}^{1/2}$ . Furthermore, there is no difference between Examples 9 and 10 and prior art Example 11 since all three examples exhibit no failures after a thermal shock test.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Robert Sellers  
Primary Examiner  
Art Unit 1712

rs 7/20/2006

